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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/939,330

08/24/2001

Alfred Kersch

L&L-I0078

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7590

03/21/2006

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EXAMINER

FULLER, ERIC B

ART UNIT

PAPER NUMBER

1762

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,330

Applicant(s)

KERSCH ET AL.

Examiner

Eric B. Fuller

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 13, 2006 has been entered.

Response to Arguments

Applicant did not provide any new arguments and only request reconsideration of the previous arguments in the previously filed Appeal Brief. These arguments are not found convincing for the reasons contained in the Examiner's Answer. The rejections of the previous Office Action have been maintained.

Applicant has added a new independent claim. This will be addressed below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaartstra (US 6,159,855) in view of Ahmed (US 4,468,283).

Vaartstra teaches a process of forming ferroelectric or perovskite films by chemical vapor deposition (column 7, lines 45-55). Water vapor may be used as a reactant gas (column 11, lines 5-10), which reads on applicant's "auxiliary gas". Water has a dipole moment and, according to the applicant's specification on page 10, lines 15-20, has the property required by claim 1. The water vapor is fed by an external supply source that is a storage container (figure 1, ref. 19). The carrier gases, precursor gases, and water vapor are all fed into the reaction chamber through a showerhead (column 12, lines 20-26). The substrate is mounted opposite the showerhead and a pump is used to exhaust the reaction chamber (figure 1, ref. 42, 46). Vaartstra fails to explicitly teach providing a connecting line directly connecting the further gas outlet opening to one of the inlet openings, with a valve in the connecting line for controlling gas flow.

However, Ahmed teaches an upgrade for CVD systems (abstract) that has such a configuration (figure 1, column 7, lines 20-30; column 6, lines 1-5). The benefit of using such a configuration is so that the process achieves more uniform reaction rates (column 5, lines 30-50). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the upgrade taught by Ahmen, and the corresponding configuration, in the process taught by Vaartstra. By doing so, one would reap the benefits of uniform reaction rates.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vaartstra (US 6,159,855) in view of Ahmed (US 4,468,283), as applied above above, and further in view of Wessels et al. (US 5,185,317).

Vaartstra, in view of Ahmed, teach the limitations above, but is silent to using methanol. However, Wessels teaches the art recognized suitability of using methanol in place of water vapor as the hydrolyzing agent in the CVD process (column 5, lines 15-40). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize methanol in place of water vapor in the process taught by Vaartstra, in view of Ahmed. By doing so, one would have a reasonable expectation of achieving similar results, as Wessels teaches the art recognized suitability of such a substitution.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Fuller whose telephone number is (571) 272-1420. The examiner can normally be reached on Mondays through Thursdays.

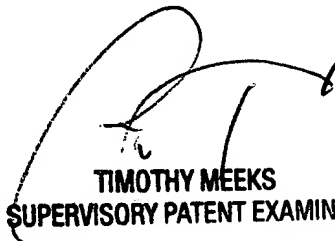
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks, can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EBF



TIMOTHY MEEKS
SUPERVISORY PATENT EXAMINER